

March 23, 2017

Valois Shea
U.S. Environmental Protection Agency
Region 8
1595 Wynkoop St.
Denver, CO, 80202-1129

Re: Public Notice: Administrative Record for the Dewey-Burdock Class III and Class V Injection Well Draft Area Permits

Dear Ms. Shea,

The following comment provided is for your consideration toward the *Proposed Dewey-Burdock Class III and Class V Injection Well Draft Area Permits* by the end of the comment period, on May 19, 2017. The permits in question are Permit No. SD31231-00000 for the aquifer exemption decision, Permit No. SD31231-00000 for the class III injection well permit, and Permit No. SD52173-00000 for the class V injection well permit. My name is Ex. 6 Personal Privacy (PP) and I am a senior at James Madison University in Harrisonburg, Virginia. I am currently studying Integrated Science and Technology, with a focus on environmental science. As a person who cares deeply about the protection of the environment, I have written a response to the UIC permits under consideration.

Introduction

Water is one of the most important and valuable resources on the planet. Water is the source of all life on earth and it needs constant protection. The Safe Drinking Water Act (SDWA), from the EPA, legally protects drinking water in the United States. This act led to the creation of the Underground Injection Control (UIC) program as a response to growing needs for underground injection of potentially dangerous materials and the extraction of materials from underground. According to the EPA, a class III injection well is a “well used to inject fluids for the extraction of minerals” and a class V injection well is a “well not included in the other classes used to generally inject non-hazardous fluid into or above an underground source of drinking water (USDW)” (Injection Wells, 1989).

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Overview of Position

The class III permit is a request to create wells that would be used for the recovery of uranium from underground (Dewey-Burdockb, 2016). This permit should not be granted in order to protect the Inyan Kara aquifers that are located where the wells would be placed (Dewey-Burdockb, 2016). The placement of these wells put the aquifers at risk of contamination from a number of possibilities that are associated with in-situ recovery. Some of the risks include groundwater contamination, leakage of chemicals, contamination of local drinking water sources, etc. (Lustgarten, 2012). The class V permit is a request to inject waste fluids into the ground after proper treatment (Dewey-Burdocka, 2016). This should also not be permitted in order to protect the Minnelusa Formation, located below the Inyan Kara aquifers. For similar reasons to reject the class III permit, the class V permit should be rejected as well. The risk of groundwater contamination, of which groundwater is the primary source of drinking water within this area, puts the people living among the Inyan Kara aquifers at risk of consuming polluted water (Kyllonen & Peter, 1987). Any amount of pollution to the aquifers would cost a heavy price to remediate, if remediation could be possible at all (Management of Remediation Waste Under RCRA, 1998 October 14).

Research of Position

The creation of wells in general requires copious amounts of labor, materials, and time (Injection Wells, 1989). All of this would be for the creation of wells that could potentially harm the environment and human health. Allowing Powertech Inc. to create these wells would not only put the environment at risk, but it would also continue our world's dependence on removing and injecting materials from earth. The United States is one of the top nations that contributes to copious amounts of drilling into the planet. With the current administration, this is likely to increase in the next few years. An article from The Virginia Pilot talks about a study conducted

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by The National Research Council of the National Academy of Sciences on the dangers of uranium mining. Specifically, the article talks about how research has found increasing activities of this type, near bodies of water that serve as sources of drinking water, often results in increased risk for contamination (Bartel, 2011). Powertech Inc. is requesting permits for well sites located within the area containing the Inyan Kara aquifers. These aquifers are the primary sources of drinking water for the “northern Black Hills, South Dakota and Wyoming, and Bear Lodge Mountains, Wyoming” (Kyllonen & Peter, 1987). For the safety and health of U.S. citizens and the environment, injection wells should not be allowed in this area.

The Underground Injection Control (UIC) program was created under the Safe Drinking Water Act (SDWA) for the application of safe injection wells that cause as little damage as possible to the environment and human health. However, the creation and use of injection wells innately contain high risks that may not be worth the reward. In the instance of this situation, the people of the Inyan Kara aquifers would be the ones that are being put at risk (Lustgarten, 2012). The health of their drinking water supply is directly impacted by the proposed permits of Powertech Inc. The impacts of these permits include the potential contamination of groundwater from leaks, contamination of surrounding subsurface and surface soil from leaks, and contamination of drinking water sources (Lustgarten, 2012). Even in conjunction with regulations under the SDWA, there are many inherent and potential risks associated with injection wells. Along with discouraging this type of activity, rejecting these permits would ensure the safety of the environment and the people of Wyoming and South Dakota (Injection Wells, 1989).

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Conclusion

As a senior Integrated Science and Technology major at James Madison University, I believe that both the class III and class V permits should be rejected by the EPA. The specific focus of my major is on the environment, but in general my major is an interdisciplinary study that includes manufacturing. From an economic perspective, these wells would provide a great profit for Powertech Inc., but this would come at a high environmental price. Furthermore, these wells present the possibility of contaminating the groundwater from the underlying aquifers. If contaminants were able to get into these aquifers, it would be a heavy price to clean it up, if it could be cleaned up at all (Injection Wells, 1989). It is a human right to have access to clean, safe drinking water and accepting these permits would potentially inhibit that right. In this situation, I believe that the risk is not justified by the reward. The EPA should reject these permits from Powertech Inc. in order to protect the environment and the U.S. citizens that live in the area of concern. If you have any questions or responses to this contact, please do not hesitate to contact me. My email address is Ex. 6 Personal Privacy (PP). I look forward to seeing the EPA's decision on this matter after the comment review period.

Sincerely,

Ex. 6 Personal Privacy (PP)

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Sources

Administrative Record for the Dewey-Burdock Class III and Class V Injection Well Draft Area Permits. (2017, March 06). Retrieved March 23, 2017

Bartel, B. (2011, December 20). Uranium mining report finds risks, benefits for Virginia. Retrieved March 26, 2017

Dewey-Burdocka. Draft Aquifer Exemption Record of Decision. (2013). Retrieved March 27, 2017

Dewey-Burdockb. Class III Draft Area Permit Documents. (2017, March 06). Retrieved March 23, 2017

Dewey-Burdock Class V Deep Disposal Injection Well Area Permit. (2017, March 06). Retrieved March 23, 2017

Goodell, J. (2016, December 09). Trump's EPA Pick Is the Fossil-Fuel Industry's Con Man. Retrieved March 26, 2017

Injection Wells: An Introduction to their Use, Operation, and Regulation. (1989). Retrieved March 26, 2017

Kyllonen, D. P., & Peter, K. D. (1987). Geohydrology and Water Quality of the Inyan Kara, Minnelusa, and Madison Aquifers of the Northern Black Hills, South Dakota and Wyoming, and Bear Lodge Mountains, Wyoming. Retrieved March 23, 2017

Lustgarten, A. (2012, September 19). Injection Wells: The Poison Beneath Us. Retrieved March 28, 2017

Management of Remediation Waste Under RCRA. (1998, October 14). Retrieved March 28, 2017.